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Mario Perez
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Docket No: JG-EPC-4955P (500563.20004)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Agamemnon Antoniou EPENETOS

Serial No.: Unassigned

Filed: Herewith

For: COMPOUNDS FOR TARGETING

Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to examination of the above-identified application, please amend the above-identified application as follows:

IN THE CLAIMS:

Please amend Claims 1-19 and 21-27 to read as follows.

1. (Amended) A compound comprising a target cell-specific portion and a cytotoxic portion, wherein the cytotoxic portion is a constitutively active caspase or has substantially the same apoptosis-inducing activity as the caspase.

2. (Amended) A compound comprising a mediator portion capable of recognizing a target cell-specific molecule and a cytotoxic portion, wherein the cytotoxic second portion is a constitutively active caspase or has substantially the same apoptosis-inducing activity as the caspase.

3. (Amended) A compound according to Claim 1 wherein the target cell-specific portion recognizes and selectively binds to a tumour cell antigen.

4. (Amended) A compound according to Claim 2 wherein the mediator portion recognizes a compound according to Claim 1.

5. (Amended) A compound according to Claim 2 wherein the target cell-specific molecule recognized by the mediator portion is derivatized.

6. (Amended) A compound according to Claim 2 wherein the target cell-specific molecule or the mediator portion is an antibody or an antigen binding fragment thereof.

7. (Amended) A compound according to Claim 2 wherein the target cell-specific molecule is internalized upon contact with the target cell.

8. (Amended) A compound according to Claim 2 wherein the target cell-specific molecule or the mediator portion is an HMFG-1 antibody or an antigen binding fragment thereof.

9. (Amended) A compound according to the Claim 6 wherein the antibody or antigen binding fragment thereof is humanized.

10. (Amended) A compound according to Claim 1 wherein the cytotoxic portion is at least the catalytically active portion of the constitutively active caspase.

11. (Amended) A compound according to Claim 1 wherein the cytotoxic portion is a constitutively active effector caspase.

12. (Amended) A compound according to Claim 1 wherein the cytotoxic portion is selected from the group consisting of a constitutively active caspase-3, caspase-6 and caspase-7.

13. (Amended) A compound according to Claim 1 wherein the cytotoxic portion is of mammalian origin.

14. (Amended) A compound according to Claim 1 wherein the cytotoxic portion is a constitutively active variant of a naturally occurring caspase.

15. (Amended) A compound according to Claim 1 wherein the cytotoxic portion is capable of oligomerization.

16. (Amended) A compound according to Claim 1 wherein the compound is a fusion compound.

17. (Amended) An isolated nucleic acid molecule encoding a compound according to Claim 1, or a target cell-specific portion, mediator portion or cytotoxic portion thereof.

18. (Amended) A method of making a compound according to Claim 1, the method comprising expressing one or more nucleic acid molecules according to Claim 17 in a host cell and isolating the compound therefrom.

19. (Amended) A vector for expressing in a host cell a compound according to Claim 1 or a portion thereof, the vector comprising one or more nucleic acid molecules according to Claim 17.

21. (Amended) A pharmaceutical composition comprising a compound according to Claim 1 and a pharmaceutically acceptable carrier or excipient.

22. (Amended) A compound for use in medicine comprising a compound according to Claim 1.

23. (Amended) A method for treating a disease associated with the dysfunction of a population of cells comprising applying a medicament comprising a compound according to Claim 1.

24. (Amended) The method according to Claim 23 wherein the disease is cancer.

25. (Amended) A method of treating a patient having target cells to be destroyed, the method of comprising administering to the patient a therapeutically effective amount of a

compound according to Claim 1.

26. (Amended) A method according to Claim 25 wherein the patient is a human.

27. (Amended) A method according to Claim 25 wherein the patient has cancer.

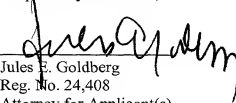
REMARKS

As a result of the foregoing amendment, Claims 1-19 and 21-27 have been amended. Claims 1-27 are pending in this application.

Applicant has hereinabove amended Claims 1-19 and 21-27 to correct spelling errors, remove multiple dependencies, provide proper antecedent basis and conform the claims to U.S. patent practice. Further, Applicant has submitted herewith a marked-up copy of the original claims showing the changes in red ink. Applicant respectfully submits that no new matter has been added.

In view of the foregoing, it is submitted that this application is now in condition for allowance and favorable reconsideration and prompt notice of allowance are earnestly solicited.

Respectfully submitted,


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CLAIMS

1. A compound comprising a target cell-specific portion and a cytotoxic portion, ^{wherein} ~~characterised in that~~ the cytotoxic ~~second~~ portion is a constitutively active caspase or has substantially the same apoptosis-inducing activity as ^{the} ~~said~~ caspase.
2. A compound comprising a mediator portion capable of ^{recognizing} ~~recognising~~ a target cell-specific molecule and a cytotoxic ~~second~~ portion, ^{wherein} ~~characterised in that~~ the cytotoxic second portion is a constitutively active caspase or has substantially the same apoptosis-inducing activity as ^{the} ~~said~~ caspase.
3. A compound according to Claim 1 wherein the target cell-specific portion ^{recognizes} ~~recognises~~ and selectively binds to a tumour cell antigen.
4. A compound according to Claim 2 wherein the mediator portion ^{recognizes} ~~recognises~~ a compound according to Claim 1.
5. A compound according to Claim 2 or 4 wherein the target cell-specific molecule ^{recognized} ~~recognised~~ by the mediator portion is ^{derivatized} ~~derivatised~~.
6. A compound ^{according to Claim 2} ~~as claimed in any preceding claim~~ wherein the target cell-specific portion or the mediator portion is an antibody or an antigen binding fragment thereof.
7. A compound ^{according to Claim 2} ~~as claimed in any preceding claim~~ wherein the target cell-specific portion ^{molecule internalized} ~~is internalised~~ upon contact with the target cell.

8. A compound ^{according to Claim 2} ~~as claimed in any preceding claim~~ wherein the target cell-specific ^{molecule} ~~portion~~ or the mediator portion is an HMFG-1 antibody or an antigen binding fragment thereof.

9. A compound according to ^{Claim 6} ~~anyone of claims 6 to 8~~ wherein the antibody or antigen binding fragment thereof is ^{humanized} ~~humanised~~.

10. A compound according to ^{Claim 1} ~~any preceding claim~~ wherein the cytotoxic portion is at least the catalytically active portion of ^{the} ~~a~~ constitutively active caspase.

11. A compound according to ^{Claim 1} ~~any preceding claim~~ wherein the cytotoxic portion is a constitutively active effector caspase ^{or has substantially} ~~the same apoptosis-inducing activity as the said caspase.~~

12. A compound according to ^{Claim 1} ~~any preceding claim~~ wherein the cytotoxic portion is ^{selected from the group consisting of} ~~a~~ constitutively active caspase-3, caspase-6 ^{and} ~~or~~ caspase-7, ^{or has substantially the same apoptosis-inducing activity as the said} ~~caspase.~~

13. A compound according to ^{Claim 1} ~~any preceding claim~~ wherein the cytotoxic portion is of mammalian origin.

14. A compound according to ^{Claim 1} ~~any preceding claim~~ wherein the cytotoxic portion is a constitutively active variant of a naturally occurring caspase.

15. A compound according to ^{Claim 1} ~~any preceding claim~~ wherein the cytotoxic

portion is capable of ~~oligomerisation~~^{oligomerization,}

16. A compound according to ~~any preceding claim~~^{Claim 1} wherein ~~said~~^{the} compound is a fusion compound.
17. An isolated nucleic acid molecule encoding a compound according to ~~any one of Claims 1 to 16~~^{Claim 1}, or a target cell-specific portion, mediator portion or cytotoxic portion thereof.
18. A method of making a compound according to ~~any one of Claims 1 to 16, said method~~^{Claim 1} comprising expressing one or more nucleic acid molecules according to Claim 17 in a host cell and isolating the compound therefrom.
19. A vector for expressing in a host cell a compound according to ~~any one of Claims 1 to 16~~^{Claim 1} or a portion thereof, ~~said~~^{the} vector comprising one or more nucleic acid molecules according to Claim 17.
20. A host cell transformed with a vector according to Claim 19.
21. A pharmaceutical composition comprising a compound according to ~~any one of Claims 1 to 16~~^{Claim 1} and a pharmaceutically acceptable carrier or excipient.
22. A compound ~~according to any one of Claims 1 to 16~~ for use in medicine, *comprising a compound according to Claim 1.*
23. ~~Use of a compound according to any one of Claims 1 to 16 in the~~^{A method}

~~preparation of a medicament~~ for treating a disease associated with the dysfunction of a population of cells, *comprising applying a medicament comprising a compound according to Claim 1.*

24. The ^{method} use according to Claim 23 ^{wherein the disease is} for treating cancer.

25. A method of treating a patient having target cells to be destroyed, the method comprising administering to ^{the} a patient a therapeutically effective amount of a compound according to ^{Claim 1.} ~~any one of Claims 1 to~~

~~16.~~

26. A method according to Claim 25 wherein the patient is ^a human.

27. A method according to Claim 25 ~~or 26~~ wherein the patient has cancer.